## **ABSTRACT**

A bi-directional high speed video data transmission system. A transmitter
transmits an encoded video data stream across a data pair to a receiver by switching a DC
current, via a pair of transistors, across the two data lines comprising the data pair. As the
current varies on the data lines, so too does the voltage. The receiver decodes the serial
video data stream back into its component parts so that the video data may be displayed
by an appropriate display device. A pair of summing resistors adds the AC currents seen
across the data lines to reconstruct the original DC current as a DC return current. The
DC return current may be used to drive a return transmitter located on the original
receiving side in order to send video data to the original transmitting side of the bi-
directional video data transmission system